

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

Claims 1-37 are canceled.

1                   38.   (New) An expression vector comprising a vitellogenin gene operably  
2 linked to a promoter, wherein the promoter is functional in a eukaryotic host suitable for use as a  
3 feed or feed additive.

1                   39.   (New) The expression vector according to claim 38 wherein the promoter  
2 is functional in yeast.

1                   40.   (New) The expression vector according to claim 39 wherein the promoter  
2 is a constitutive promoter.

1                   41.   (New) The expression vector according to claim 40 wherein the promoter  
2 is a yeast glyceraldehyde-3-phosphate dehydrogenase (GAP) promoter.

1                   42.   (New) The expression vector according to claim 41 comprising SEQ ID  
2 NO: 1.

1                   43.   (New) The expression vector according to claim 42 which is Vtg  
2 (-SS)/pGAPZA, Vtg (VTGSS)/pGAPZA or Vtg ( $\alpha$ SS)/pGAPZ $\alpha$ C.

1                   44.   (New) A transgenic eukaryotic host suitable for use as a feed or feed  
2 additive comprising the expression vector according to claim 38.

1                   45.   (New) A transgenic yeast comprising an expression vector wherein the  
2 expression vector comprises a vitellogenin gene operably linked to a promoter functional in  
3 yeast.

1                   46.   (New) The transgenic yeast according to claim 45 wherein multiple  
2 copies of the expression vector has integrated into the yeast genome.

1                   47.   (New) The transgenic yeast according to claim 45 wherein the promoter is  
2 yeast GAP promoter.

1                   48.   (New) The transgenic yeast according to claim 47 comprising SEQ ID  
2 NO: 1.

1                   49.   (New) The transgenic yeast according to claim 48 wherein the yeast is  
2 *Pichia pastoris*.

1                   50.   (New) The transgenic yeast according to claim 49 wherein vitellogenin  
2 protein is expressed intracellularly.

1                   51.   (New) The transgenic yeast according to claim 50 wherein yeast is  
2 protease deficient.

1                   52.   (New) The transgenic yeast according to claim 51 wherein the amino acid  
2 and lipid contents are increased.

1                   53.   (New) The transgenic yeast according to claim 52 wherein the level of  
2 polyunsaturated fatty acids is increased.

1                   54.   (New) A method of increasing the level of polyunsaturated fatty acids in a  
2 transgenic yeast according to claim 45 comprising culturing the transgenic yeast in media  
3 comprising fish oil.

1                   55.   (New) The method according to claim 54 wherein the concentration of the  
2 fish oil in the media is between about 2% and 5%.

1                   56.   (New) A method for increasing the survival rates of oviparous larvae  
2   comprising the step of feeding the large transgenic yeast or an intermediate live feed that has  
3   been fed transgenic yeast according to claim 45.

1                   57.   (New) The method according to claim 56 wherein the larvae are aquatic  
2   or marine larvae.

1                   58.   (New) The method according to claim 57 wherein the aquatic or marine  
2   larvae are tilapia larvae.

1                   59.   (New) The method according to claim 58 wherein the tilapia larvae is fed  
2   to 1.0 to 1.6 mg of transgenic yeast per tilapia larvae per day.

1                   60.   (New) The method according to claim 58 wherein the intermediate live  
2   feed is rotifer or artemia.

1                   61.   (New) The method according to claim 59 wherein the step of feeding the  
2   larvae transgenic yeast further comprises co-feeding with an intermediate live feed.

1                   62.   (New) The method according to claim 61 wherein the intermediate live  
2   feed is a rotifer or artemia.

1                   63.   (New) The method according to claim 62 wherein the rotifer or artemia is  
2   co-fed at a density of 5 individuals per milliliter.

1                   64.   (New) A method of increasing broodstock egg quality of an oviparous  
2   animal comprising the step of feeding the broodstock the transgenic yeast or an intermediate live  
3   feed that has been fed transgenic yeast according to claim 45.

1                   65.   (New) The method according to claim 64 wherein the oviparous animal is  
2   an aquatic or marine oviparous animal.

1                    66.    (New) The method according to claim 65 wherein the aquatic or marine  
2    oviparous animal is a fish.

1                    67.    (New) The method according to claim 65 wherein the fish is tilapia.

1                    68.    (New) A method of enriching an intermediate live feed comprising the  
2    step of feeding the intermediate live feed the transgenic yeast according to claim 45.

1                    69.    (New) The method according to claim 68 wherein the intermediate live  
2    feed is a rotifer or an artemia.

1                    70.    (New) The method according to claim 69 wherein the artemia is an  
2    *Artemia* napulii.

1                    71.    (New) The method according to claim 70 wherein the fatty acid content  
2    of the artemia is increased.

1                    72.    (New) The method according to claim 71 wherein the fatty acid is a  
2    polyunsaturated fatty acid.

1                    73.    (New) The method according to claim 72 wherein the polyunsaturated  
2    fatty acid is eicosapentaenoic acid or docosahexanoic acid.

                    74.    (New) Use of recombinant vitellogenin to deliver a therapeutic material  
into the maternal oocytes of an oviparous animal.